

The Honorable John C. Coughenour

**UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF WASHINGTON**

UNITED STATES OF AMERICA, *et al.*,  
Plaintiffs, and  
PUYALLUP TRIBE OF INDIANS, *et al.*,  
Plaintiff-Intervenors,  
v.  
ELECTRON HYDRO, LLC,  
Defendant.

Case No. 2:20-cv-01746-JCC

DECLARATION OF  
ERIC MARKS IN SUPPORT OF  
UNITED STATES' RESPONSE  
TO DEFENDANT'S MOTION  
TO STAY DISCOVERY

**DECLARATION OF ERIC MARKS**

I, Eric Marks, hereby declare:

1. I have been employed as a biologist with the Puyallup Tribe's Fisheries Department for over 20 years. I am a graduate of the University of Washington's School of Fisheries. Prior to joining Tribal Fisheries, I worked for the National Park Service (Mt. Rainer), U.S. Forest Service, and the Oregon Department of Fish and Wildlife. I have 23 years of

1 experience conducting specialized research, monitoring, and evaluation activities focusing on the  
2 ecology of salmon, steelhead, and bull trout in the Pacific Northwest.

3 2. This declaration is filed in support of the United States' Response to Defendant's  
4 Motion to Stay Discovery. The purpose of this declaration is to provide my firsthand  
5 observation of artificial turf, crumb rubber, other construction materials, and HDPE liner that the  
6 Tribe continues to find in the Puyallup River.

7 3. Since November 12, 2020, I have conducted many surveys of the Puyallup River  
8 downstream of Electron Hydro, LLC's diversion structure. I have maintained contemporaneous  
9 records, including date and location found, photographs, and measurements of the material that I  
10 have observed in the Puyallup River. During these surveys, I have continuously found evidence  
11 of artificial turf and HDPE liner, which I broadly group into four categories:

12 a. Artificial turf pieces – pieces of turf up to 56 square feet. These turf  
13 pieces have no crumb rubber remaining. Attached hereto as Exhibit 1 is a true and accurate  
14 photograph of an artificial turf piece retrieved from the Puyallup River on May 3, 2021. Each  
15 turf mat contains approximately 72 fibers per square inch, with over 10,300 fibers per square  
16 foot of turf. The turf, over time, is breaking down and releasing fibers that become entangled in  
17 woody debris and log jams, as well as tangled in the vegetation along the banks of the river.

18 b. Turf fibers – constituent fragments of the artificial turf material that are  
19 generally from 4.5 to 6 inches in length. Attached hereto as Exhibit 2 is a true and accurate  
20 photograph of turf fibers retrieved from the Puyallup River on January 28, 2022. These turf  
21 fibers appear to be extremely resilient as we continue to find these fibers even during our most  
22 recent surveys.

23 c. Crumb rubber – small rubber beads embedded in sediment in the riverbed.

Attached hereto as Exhibit 3 is a true and accurate photograph of crumb rubber found in the Puyallup River on August 26, 2020 at river mile 29.9. For approximately 4 months following the placement of the turf in the river, crumb rubber was visible along the river banks; often distributed in long ribbons at various water stage heights. Myself and other fisheries staff continued to find crumb rubber buried in the river bottom substrate through March 2021. After that time, we discontinued collecting bank and bottom samples for crumb rubber documentation.

d. HDPE liner – portions of HDPE liner up to 45 square feet. Attached hereto as Exhibit 4 is a true and accurate photograph of HDPE liner retrieved from the Puyallup River on March 9, 2021.

4. During the month of January 2022, an additional 9 days were spent searching for and recovering materials including turf fibers, intact turf pieces/mats, geotechnical fabric, and HDPE plastic. Numerous turf fibers were found hung-up or caught on rocks, vegetation, woody debris, sand/sediment, log jams, and root wads. A large mat of turf measuring approximately 8 square feet (over 82,000 fibers) was found approximately 0.5 miles downstream of the Electron powerhouse. A large sheet of geotechnical fabric measuring approximately 14x10 feet was found and removed from a side channel approximately 1.3 miles downstream of the project. Search efforts during the month of January also resulted in the recovery of 36 pieces of HDPE ranging in size from 3x5 inches to 52x25 inches.

I declare under penalty of perjury that the foregoing is true and correct. 28 U.S.C. § 1746.

Date: FEBRUARY 4, 2022



Eric Marks